



THE URBAN DISTRICT COUNCIL OF GOOLE.



Annual Report

OF THE

Medical Officer of Health,

ALEXANDER M. ERSKINE, M.D., D.P.H.,

Fellow of the Incorporated Society of Medical Officers of Health,

MEDICAL SUPERINTENDENT OF THE FEVER HOSPITALS,

Deputy Medical Officer of Health for the Hull and Goole Port Sanitary
Authority,

FOR THE YEAR 1904




Goole :

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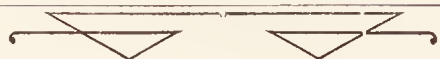


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Names and Addresses of the Councillors,

1904-1905.



Chairman :

ED. JACKSON, J.P. THE GABLES

Vice-Chairman :

R. H. HUNTINGTON BELLE VUE, NORTH STREET

North Ward.

L. HOLMES HOOK, GOOLE

G. LEVITT THIRD AVENUE

E. HIND BOOTHFERRY ROAD

South Ward.

R. LEGGOTT FOUNDRY LANE, GOOLE

G. E. HILL 43, PERCY STREET

T. ASK NEWPORT STREET

East Ward.

W. CHESTER HOOK

F. CHAMBERS CLIFTON GARDENS

R. H. HUNTINGTON BELLE VUE, NORTH STREET

West Ward.

T. C. TURTON CLIFTON GARDENS

ED. JACKSON THE GABLES

A. BLYTH, J.P. BOOTHFERRY ROAD

Central Ward.

J. GOODERIDGE AIRE STREET

J. FAWBERT CARLISLE STREET

W. E. GRAYBURN NAVIGATION HOUSE

THE HEALTH COMMITTEE consists of all the Members.

Hospital Committee.

F. CHAMBERS (Chairman), W. CHESTER, W. E. GRAYBURN,
E. JACKSON, T. C. TURTON.

TO THE CHAIRMAN AND MEMBERS OF THE GOOLE URBAN COUNCIL.

GENTLEMEN,

I HAVE the honour to present to you my Annual Report for the year ending December, 1904, on questions relating to the health of the town, in compliance with the order of the Local Government Board.

The Birth Rate during 1904 fell to 33'9 per thousand of the population; in 1903 it was 35'2. The average rate for the ~~past~~ ^{previous} ten years is 35'4.

The Death Rate for the year under review reached the high figure of 22'4 per thousand of the population, and is the largest number recorded for Goole since 1878. In 1903 it was only 17'5. The average for the years 1894 to 1903 is 17'9. This high death rate was entirely due to deaths, mainly amongst children, arising out of an epidemic of summer diarrhoea, which was followed in turn by an epidemic of measles. Apart from these two factors, the deaths from other causes were below the average.

The Infantile Mortality, or deaths of children under one year of age, reached the alarming total of 266 per thousand births registered. In other words, more than a quarter of the children born during the year in Goole, died before they reached the age of one year. This subject deserves the earnest attention of each individual member of the Council, and I have referred in detail to the matter in different parts of my report, and particularly I would draw your attention to the suggestions on pages 27 and 35.

The year under review has been a trying one for our department, and taxed our energies to the utmost. During the summer we had an epidemic of small-pox, which might have been attended with serious consequences to the town. Fortunately, our efforts were successful in combating it. This was immediately followed by an epidemic of summer diarrhoea, with its terrible tale of infantile deaths, in the midst of which measles became epidemic, and raged as a scourge all over the town. Both of these diseases are non-notifiable, hence our efforts to control them are limited. Contrast these with the epidemic of small-pox just referred to, and with an epidemic of diphtheria, which followed in the wake of the measles epidemic, and we have presented to us a striking object lesson on the advantages of notification. Probably never before has the health department of the Council's work been so efficient as it is at the present time, and I take the opportunity of expressing my obligations to those associated with me for the untiring zeal and energy displayed at all times in the exercise of their duties, and I specially congratulate Mr. Ellis on the excellence of his report, and also I should like to place on record the satisfaction that has been expressed on the suitability of his design for a nightsoil cart, which has been

adopted by the Council, and which gives so much satisfaction, not only in its actual use, but also at the small amount of noise we now hear at nights, when these carts are going their rounds.

I am, Gentlemen,

Your obedient servant,

ALEXANDER M. ERSKINE,

Medical Officer of Health, and
Hospital Superintendent.

Goole, 13th February, 1905.

Summary of VITAL AND MORTAL STATISTICS, &c. for 1904.

Area	...	...	...	1,218 acres.
Population	...	...	...	17,000
Marriages	...	...	...	120
Births	...	...	...	No. 567, rate 33·9.
Deaths	...	...	...	No. 381, rate 22·4.
Infantile Mortality Rate	...	...	...	266.
Zymotic Death Rate	...	...	...	6·5.
Phthisis Death Rate	...	...	...	·8
Number of Notifications	...	...	...	143.
Rateable Value	...	...	...	£70,784.
District Rate	...	...	...	3s. 10d.
Poor Rate	...	...	...	2s. 10d.

1904.	ENGLAND AND WALES.	Great Towns. (76)	Smaller Towns. (142).	England and Wales less the 218 towns
BIRTH-RATE - -	27·9	29·1	27·5	26·8
DEATH-RATE - -	16·2	17·2	15·6	15·3
Zymotic Death-rate - -	1·94	2·49	2·02	1·28
Infantile Mortality - - (per 1,000 births)	146	160	154	125

It may be noted that the Birth-Rate for England and Wales is the lowest on record.

ANNUAL REPORT, 1904.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

GOOLE is situated at the extreme eastern part of the West Riding, in the southern part of the flat alluvial plain of the Vale of York. In a former report I stated that the town was about eight feet above sea level. At the time of writing an ordnance survey is being taken of the district, and I am informed that the general level of the town and district is ten feet above sea level.

As showing the character of the sub-soil, the following are the layers passed through in digging for the foundations of the proposed swimming baths, at the site in Pasture Road :—Top soil, 1 foot ; sandy warp, 3 feet ; wet silt, 2 feet ; peat, $1\frac{3}{4}$ feet ; sandy clay, 7 inches ; blue clay.

Population.

The population of the town at the end of June, 1904, estimated according to the Registrar-General's method (based upon the rate of increase during the previous decade, 1891-1901, as revealed by the census of 1901), together with knowledge of the local factor that there are very few empty houses in the town, was 17,000, as compared with 16,850 for 1903. The birth rate and death rate in this report are calculated upon this figure.

The natural increase of population—i.e., the preponderance of births over deaths—in 1904 was 186, as compared with 299 in 1903, 250 in 1902, and 349 in 1901. The proportion of persons per acre was 13·6, and per house 4·6.

The estimated population of the different wards of the town, at the middle of the year 1903, was as follows :—North Ward, 4,410 ; South Ward, 4,244 ; East Ward, 3,760 ; West Ward, 2,822 ; Central Ward, 1,764.

According to Langdale, the population of Goole in 1821 was 450. Previous to 1881 the town of Goole does not appear to have had any legally defined boundaries, but the population assigned to the town by the local census officers was as follows :—1851, 4,722 ; 1861, 5,850 ; 1871, 7,680 ; after which the official census figures are obtained.

Births.

The total number of births notified to me by the Registrar during the year was 567. The total number registered in 1903 was 594. The birth rate in 1904 was 33·9, as compared with 35·2 in 1903. Of the births, 287 were males and 280 females. Arranged according to wards, 153 were registered in the North Ward ; South, 144 ; East, 124 ; West, 89 ; Central, 57. The average for the 142 smaller towns was 27·5.

The total number of illegitimate children born in 1904 was 23 (four per cent. of total births).

Marriages.

There were 120 marriages solemnized in the town during the year, as compared with 115 during 1903.

Deaths

The gross total number of deaths registered in the town during 1904 was 394, giving a death rate of 23·3 per thousand living. If the deaths of 16 persons not belonging to the town (non-residents) be deducted, and those of 3 persons (residents) who died outside the town be added, the nett total number of deaths was 381, giving a nett death rate of 22·4 per thousand living. The average death rate for the 142 smaller towns in 1904 was 15·6.

Comparison of the figures with previous years :—

	Total Number of Deaths Registered.			Gross Death Rate.	Nett Number of Deaths.		Nett Death Rate.
1894	...	325	...	19·4	312	...	18·9
1895	...	327	...	19·8	321	...	19·4
1896	...	288	...	17·4	277	...	16·7
1897	...	271	...	16·4	258	...	15·6
1898	...	300	...	18·1	284	...	17·2
1899	...	351	...	21·2	333	...	20·1
1900	...	299	...	18·1	289	...	17·5
1901	...	295	...	17·6	293	...	17·6
1902	...	319	...	19·0	313	...	18·8
1903	...	300	...	17·8	295	...	17·5
1904	...	397	...	23·3	381	...	22·4

In the above table I have given for the first time the revised nett death rate, as it was shown by the 1901 census returns that the population of Goole had been over-estimated, and the basis of all vital statistics must be an accurate estimate of the total population.

The deaths arranged according to wards were North : 96 ; South, 111 ; East, 87 ; West, 37 ; Central, 50.

The increase in nett total deaths in 1904 as compared with 1903 was 86.

The outstanding feature of this year's report is the abnormally high death rate for the year, and calls for special remark. We have to go back to the year 1878, when the sanitary administration of Goole was in its infancy, before we come across a similar record. In that year the death rate was 24·1.

The cause of the high death rate is readily explained, and occurred in the third and fourth quarters of the year. It was due to the deaths that occurred from measles and epidemic diarrhœa, and will be further referred to under these headings. 45 deaths were due

to measles and 57 to diarrhœa, all of the latter and 42 of the former being under five years of age. But for these deaths the rate would have been considerably under the average. The West Ward is remarkable for the small number of deaths in contrast with the other wards. The deaths were registered during the months of the year as follows:—January, 21; February, 24; March, 31; April, 22; May, 22; June, 16; July, 22; August, 29; September, 47; October, 48; November, 49; December, 47. Thus the death rate for the first six months of the year was only 16 per thousand, in contrast with the last six months, when it rose to 28·5 per thousand.

It will be remembered that the summer of 1904 was exceptionally fine and dry. The mean temperature of the air for the five months June to October having been 60 degrees, and the total rainfall for these months only 8·99 inches. Diarrhœa amongst infants became epidemic about the middle of July, and deaths from this disease were registered from this period right up to the end of October. An epidemic of measles began in September and lasted to the end of November, and caused many deaths, as already mentioned. Diphtheria became epidemic in November and caused 4 deaths.

On the other hand, there has been a decided decrease in deaths from phthisis, typhoid (enteric) fever, cancer, premature births and diseases and accidents of parturition.

The Local Government Board's Tables.

In the accompanying tables, deaths occurring in public institutions are allotted to the different wards, or other localities, according to the addresses of the deceased. In the case of the Union, which is situated in the North Ward, however, this has not always been possible, as no previous address has been given. Also in the case of the Cottage Hospital, which is situated in the Central Ward, where no previous address can be found, a few deaths have been allotted here, as well as cases of drowning, etc., of unknown strangers.

It will be observed that deaths of non-residents are excluded from certain calculations, and deaths of residents are included, according to the instructions of the Local Government Board. The Board defines non-residents, as persons brought into the district on account of illness and dying there; and residents, as persons who have been taken out of the district on account of illness and have died elsewhere.

TABLE I.

VITAL STATISTICS DURING 1904 AND PREVIOUS YEARS IN
THE URBAN DISTRICT OF GOOLE.

Year.	Population estimated to Middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.	Deaths of Non-Residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES. NET.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1894 ..	16466	590	35·8	89	150	325	19·4	21	13	..	312	18·9
1895 ..	16500	619	36·0	99	161	327	19·8	31	6	..	321	19·4
1896 ..	16500	635	36·2	96	151	288	17·4	34	11	..	277	16·7
1897 ..	16500	574	34·7	96	167	271	16·4	27	13	..	258	15·6
1898 ..	16500	581	34·0	98	167	300	18·1	40	18	2	284	17·2
1899 ..	16500	606	35·6	119	196	351	21·2	39	20	2	333	20·1
1900 ..	16500	580	34·1	76	131	299	18·1	43	13	3	289	17·5
1901 ..	16576	642	38·8	95	145	295	17·6	30	9	7	293	17·6
1902 ..	16723	563	33·6	106	188	319	19·0	31	9	3	313	18·8
1903 ..	16850	594	35·2	89	149	300	17·8	45	8	4	295	17·5
Av'rages } '94-1903 }	16591	598	35·4	96	160	307	18·4	34	12	3	297	17·9
1904	17000	567	33·9	151	266	397	23·3	47	16	3	381	22·4

* Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) .. 1,218 Acres.

Total population at all ages	16,576	} At Census of 1901.
Number of inhabited houses	3,538	
Average number of persons per house	4·6	

TABLE II.

TABLE SHOWING CERTAIN MORTALITY STATISTICS, CLASSIFIED ACCORDING TO WARDS,
IN THE URBAN DISTRICT OF GOOLE FOR THE YEARS 1901-1903.

NAMES OF LOCALITIES	NORTH.				SOUTH.				EAST.				WEST.				CENTRAL.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
Year.																				
1901 ..	4354	177	77	26	4100	170	74	26	3660	118	62	19	2722	116	45	17	1740	61	29	5
1902 ..	4388	148	86	21	4165	179	84	33	3660	106	71	22	2770	85	36	18	1740	46	42	12
1903 ..	4410	154	71	18	4200	175	95	35	3690	118	57	17	2810	88	34	12	1740	59	38	7
1904 ..	4410	153	96	44	4244	144	111	38	3760	124	87	35	2822	89	37	18	1764	57	50	16
TOTALS IN WHOLE DISTRICT																				
				1901	16576	642	293	95												
		Do.		do.	16723	563	313	106												
		Do.		do.	16850	594	296	89												
		Do.		do.	17000	567	381	151												

TABLE IV.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES							DEATHS IN WARDS (ALL AGES).					Deaths in Public Institutions.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	North.	South.	East.	West.	Central.	
Small-pox	1	13	29	3	..	1	..	15	14	6	5	5	1
Measles	45	..	..	..	..	..	..	..	..	..	5	..	..
Scarlet Fever	2	..	2	..	..	..	..	..	2	..	..	..	..
Whooping Cough	4	..	..	4	..	..	..	..	2	1	..	1	2
Diphtheria and Membranous Croup .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Enteric	2	..	..	1	..	1	..	1	..	1	..	..	3
Other Continued .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	57	52	5	..	..	..	..	19	10	15	5	8	1
Enteritis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	1	1	..	..	..	..	..	1	..	..	..	..	..
Phthisis	14	12	7	4	2	11	..	2	6	2	2	2	1
Other Tubercular Diseases	27	12	..	..	2	2	..	7	8	8	..	4	..
Cancer, Malignant Disease	6	..	..	..	..	3	..	2	1	2	..	1	2
Bronchitis	22	9	..	..	..	2	..	7	7	5	2	1	3
Pneumonia	38	13	7	..	..	14	..	7	12	8	7	4	1
Pleurisy .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Respiratory Organs .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism, Cirrhosis of Liver .. .. .	..	..	..	..	..	..	1	..	..	..	..	..	..
Venereal Diseases .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	14	14	..	..	..	..	..	2	4	3	2	3	1
Diseases and Accidents of Parturition	1	..	..	..	..	1	..	12	8	9	2	1	8
Heart Diseases	32	..	2	2	1	18	..	..	5	2	2	1	7
Accidents	15	1	2	6	2	4	..	3	1	2	1	4	1
Suicides	3	..	1	..	..	3	..	0	1	1	1	..	1
Rheumatism	6	..	4	..	..	2	..	2	2	2	..	..	3
All other causes	91	35	4	1	2	25	24	16	29	22	9	15	13
All causes	381	131	59	21	9	87	54	96	111	87	45	50	47

Infantile Mortality.

The total number of deaths under one year of age in 1904 was 151, or 266 per thousand births, or 42 per cent. of the nett total number of deaths at all ages.

This alarming figure calls for the individual attention of each member of the Council, and demands consideration. At each committee meeting from July onwards I made a special report on the subject to the members, and the meetings as a body were sympathetic.

The corresponding figures for the past ten years have been 89, 99, 96, 96, 98, 119, 76, 95, 106, 89, and the figures for England and Wales during 1904, given as the rate per 1,000 births, was 146; Rural England and Wales, 125; 76 great towns, 160; 142 smaller towns, 154; and Goole Urban, 266. During the first half of the year the rate was normal. It was during the third and fourth quarters that the excess of deaths occurred, which deaths were due to epidemic diarrhoea and measles. Arranged according to wards, these were distributed as follows:—North, 44; South, 38; East, 35; West, 18; Central, 16. The West Ward was the only one in which no increase occurred. The greatest excess was in the North Ward, with an almost similar excess in the East Ward; the South Ward increased its permanent high level, and an excess also occurred in the Central Ward. For the actual figures see Table II. The causes of death were as follows:—

Measles	...	...	...	...	...	...	13
Diarrhoea	...	...	...	...	...	...	52
Erysipelas	...	...	...	...	...	...	1
Tubercular Diseases	...	...	...	...	...	...	13
Bronchitis	...	...	...	...	...	...	9
Pneumonia	...	...	...	...	...	...	13
Premature Birth	...	...	...	...	...	...	14
Accident	...	...	...	...	...	...	1
All other causes	...	...	...	...	...	...	35
Total							151

Under the respective headings of measles and epidemic diarrhoea I shall refer at length to the causes which have contributed to this sacrifice of infant life.

Infectious Diseases.

Return of the number of Infectious Diseases notified to the Medical Officer of Health during the year 1904, and of the deaths from the diseases notified.

Notifiable Diseases.				Cases Notified.	Deaths Registered.
Small-pox	...	...	...	23	1
Diphtheria and Croup	...	...	...	46	4
Erysipelas	...	...	...	23	1
Scarlet Fever	...	...	...	36	0
Enteric Fever	...	...	...	6	2
Chicken-pox	...	...	...	9	0
Not Notifiable.				143	8
Measles	...	...	...	...	45
Whooping Cough...	...	...	...	...	2
Epidemic Diarrhœa	...	...	...	...	57
Total				...	112

Giving a zymotic death rate, *i.e.*, the death rate from the seven principal zymotic diseases—small-pox, measles, scarlet fever, diphtheria, whooping cough, fever (typhus and typhoid), and summer diarrhœa, of 6·5 per thousand living at all ages, as compared with 1·3 in 1903.

There were only 8 deaths due to the notifiable diseases of an infectious character, equivalent to a death rate of ·47 per thousand, a very marked contrast in favour of notification as a preventative measure. As illustrating this point, I need only refer in passing, to the epidemics of small-pox, and diphtheria, both of which we were able to control as soon as we received information, and the deaths from which were 1 and 4 respectively. Contrast this with the deaths from measles, 45, and epidemic diarrhœa, 57, non-notifiable diseases of an infectious character, over which we have no control, and concerning which ^{we have} no information, until the returns are received of deaths being registered as due to these diseases, and, furthermore, for the past three years, no death has been registered as due to scarlet fever, although during this period 150 cases have been notified. Since the year 1878 no such similar record has been given for Goole. The zymotic death rate for the 142 smaller towns during 1904 was 2·02.

TABLE III.

TABLE SHOWING NEW CASES OF INFECTIOUS SICKNESS, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH DURING THE YEAR 1904, IN THE GOOLE URBAN DISTRICT, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH WARD.					No. of Cases Removed to Hospital from Each Ward.					
	At Ages—Years.							North.	South.	East.	West.	Central.	North.	South.	East.	West.	Central.	Rural.
	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards											
Small Pox ..	23	..	1	1	4	16	1	8	4	5	4	2	8	4	5	4	1	1
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria and Membranous Croup	46	..	11	26	6	3	..	..	22	8	4	6	1	19	6	4	1	..
Erysipelas ..	23	2	..	1	1	15	4	3	4	8	5	3	..	..	..	..	..	..
Scarlet Fever ..	36	..	11	23	2	..	..	14	1	3	15	3	12	..	3	12	1	2
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	6	..	..	2	2	2	..	2	1	3	..	..	1	1	..	..	..	3
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox ..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals..	143	2	23	53	15	36	5	33	32	27	28	14	22	24	14	20	3	6

Inquests.

Thirty-seven inquests were held during the year. Of these deaths 4 were due to accidents; 6, drowning; 3, suicide; 3, burns; 1, suffocation; 1, poisoning; 1, diphtheria; 18, natural causes.

SUMMARY OF MONTHLY REPORTS.

Infectious Diseases Notified.

JANUARY.—Diphtheria and Croup, 2; Erysipelas, 2; Scarlet Fever, 3; Total, 7; same month last year, 28.

FEBRUARY.—Erysipelas, 4; Scarlet Fever, 5; Enteric Fever, 1; Total, 10; same month last year, 7.

MARCH.—Erysipelas, 2; Scarlet Fever, 7; Total, 9.

APRIL.—Scarlet Fever, 1; Enteric Fever, 1; Total, 2.

MAY.—Scarlet Fever, 9; Total, 9.

JUNE.—Small-pox, 20; Diphtheria and Croup, 5; Erysipelas, 2; Scarlet Fever, 4; Chicken-pox, 2; Total, 33.

JULY.—Small-pox, 2; Diphtheria and Croup, 2; Scarlet Fever, 3; Chicken-pox, 5; Total, 12.

AUGUST.—Erysipelas, 1; Chicken-pox, 2; Total, 3; same month last year, 17.

SEPTEMBER.—Diphtheria and Croup, 2; Erysipelas, 2; Enteric Fever, 1; Total, 5.

OCTOBER.—Diphtheria and Croup, 2; Erysipelas, 3; Enteric Fever, 2; Total, 7.

NOVEMBER.—Diphtheria and Croup, 21; Erysipelas, 4; Total, 25; last month, 7.

DECEMBER.—Diphtheria and Croup, 11; Erysipelas, 3; Scarlet Fever, 4; Enteric Fever, 1; Total, 19; last month, 25.

Hospital Report.

	Cases Admitted.			Dis- charged.			Died.		Re- maining
January	2	...	6	...	0	...	8
February	6	...	0	...	1	...	7
March	5	...	1	...	0	...	9
April	0	...	6	...	0	...	3
May	11	...	3	...	0	...	11
June	32	...	12	...	2	...	29
July	3	...	20	...	1	...	11
August	1	...	9	...	0	...	1
September	3	...	2	...	0	...	2
October	1	...	0	...	0	...	2
November	18	...	4	...	2	...	14
December	8	...	16	...	0	...	6

BIRTHS, DEATHS, AND NOTIFICATIONS IN EACH WARD.

	NORTH WARD.			SOUTH WARD.			EAST WARD.			WEST WARD.			CENTRAL WARD.		
	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.
1904.															
January	17	2	3	10	8	0	12	8	3	8	2	1	7	1	0
February	12	9	6	10	6	1	11	3	1	4	2	2	6	4	0
March	16	13	1	13	10	0	11	3	2	11	1	5	4	4	1
April	11	5	0	13	5	0	11	7	1	3	4	1	3	1	0
May	6	6	9	9	7	0	9	5	0	7	1	0	4	3	0
June	15	4	10	7	2	5	8	5	7	6	1	9	2	4	2
July	14	4	5	14	6	0	11	4	3	11	3	2	5	5	2
August	7	5	0	15	13	0	11	5	3	11	2	0	6	4	0
September	12	18	0	16	10	1	16	10	3	6	5	1	8	5	0
October	9	8	1	8	17	2	12	13	2	8	3	0	9	7	2
November	11	18	2	13	8	14	6	11	15	7	6	2	1	6	2
December	18	13	1	13	13	9	5	9	1	5	8	2	2	4	6

DISEASE INCIDENCE.

Small-pox

In accordance with the resolution, passed at the meeting of the General Purposes Committee, held on the 12th October last, I have prepared the following detailed report on the outbreak of small-pox.

On the afternoon of the 15th June I met a colleague in the street, who informed me that he had been attending "peculiar" cases since about last Whitsuntide, 23rd May. From his description I suggested that his cases were evidently of an infectious character, and requested of him permission to see them. During the afternoon of the same day we accordingly went together to 27, Second Avenue, where Mrs. M. was ill in bed. She was covered with a well-marked vesicular eruption, which I at once pronounced to be sma'l-pox. She gave a history of having headache, backache and vomiting on the 8th June; a rash appeared on the 12th June, and it now presented the peculiar "shotty" feel to the finger which is characteristic of small-pox, and the eruption was in the vesicular stage with red edges.

Intense frontal headache, severe pains in the back and vomiting are very constant features and typical of the onset of small-pox, then on the fourth day small red spots appear, which become blebs, containing water, with inflamed edges, on the fifth or sixth day, and the patient feels better; about the eighth day these blebs change into pustules containing matter.

I asked the medical attendant to come down to my house and discuss the matter, which we did in a friendly manner. In deference to the position he took in the matter, I suggested that an independent medical opinion be obtained, and we ultimately agreed to call in Dr. Kaye, the West Riding Medical Officer. I at once telephoned Dr. Kaye, but he could not come over until the following morning, when he, along with the medical attendant, visited Mr. and Mrs. M., 27, Second Avenue, North Ward; T. K., 1, Cross Gordon Street, West Ward; and Mrs. J., 88, South Street, South Ward; all of which Dr. Kaye pronounced to be well marked cases of small-pox. They were then notified and promptly removed to the small-pox hospital.

I at once called a special meeting of the Committee and reported the matter. Special reports were also sent to the County Council and to the Local Government Board, in accordance with the order of the Local Government Board.

After the patients were removed to hospital, we removed all their clothing and bedding for disinfection, the paper was stripped off the bedrooms and living rooms occupied by the patients, and the walls then sprayed with Formalin. The public vaccinator was informed, and as complete a list as possible was obtained of all contacts.

The Committee decided to meet daily, when I was instructed to report to them on the progress of the epidemic. An old cab was bought for the exclusive use of conveying small-pox cases to hospital, as we were without a separate ambulance for this purpose. In all we had 23 cases notified, with one death. June 16th, 4 cases; June 17th, 2 cases; June 19th, 1 case; June 20th, 1 case; June 21st, 3 cases; June 22nd, 2 cases; June 23rd, 3 cases; June 24th, 2 cases; June 25th, 1 case; June 28th, 1 case; June 30th, 1 case; July 3rd, 2 cases.

At the meeting of Committee held 17th June it was decided to add chicken-pox to the list of notifiable diseases, and a special meeting of Council was convened for this purpose.

As a result of my enquiries, I found that a few doors away from Mrs. J., 88, South Street—one of the first cases notified—at a house where she visited, *i.e.*, at 9, Doyle Street, there had been three cases of illness, with an eruption, about Whitsuntide, as well as a similar case at their back door, making four in all. They had been medically attended, but had evidently not been considered to be cases of small-pox, as they had not been notified. We felt that we had to face a serious condition of affairs, as the infection was spread all over the town, and instead of receiving assistance from a section of the public we were met with derision and laughed at, and the wildest rumours were circulated about the town to the effect that the cases were not small-pox at all, etc., and in this connection I might mention that in the case of the death which unfortunately occurred from the disease, a note was sent to the office of our local paper that the patient had not died from small-pox, but from “fever,” although the writers of the note had never even seen the patient.

The statement that the cases were not small-pox seems too absurd as to require contradiction, as notifications were received from three separate doctors in the town, all were seen by Dr. Farrar, Medical Inspector of the Local Government Board, and also I notified Dr. Browne, Medical Officer of Health, Howden, that two sisters of Mrs. M. were visiting her on the 15th June, whilst she was suffering from small-pox, and were returning to Laxton. Dr. Brown writes that “Dr. Mitchell Wilson (County Medical Officer), saw both patients with me on June 24th and agreed it was small-pox.” There was only one of the cases which presented a difficulty in diagnosis, and furthermore, the cases were not in children, but in adults, chicken-pox is a disease which occurs amongst children and is rarely seen in adults.

A strict sense of duty aided us in taking no notice of idle gossip, and our success in dealing with the epidemic was largely due to the thorough measures we adopted, and especially in regard to our method of dealing with the contacts. After we had got hold of the disease, by a daily visitation of all contacts we were nearly always ready for the further cases as they developed, and only had to wait for their being notified. Handbills were circulated in the districts affected.

The disease, fortunately, was not of so infectious a character as often occurs; all epidemics vary in this respect, and then the weather at the time was particularly fine and bright, so that the patients were living more or less with open doors and windows, and not coming into such intimate contact, with the result that the infection was very much diluted, fresh air and sunlight being the two most efficient disinfectants we have.

During the period of the small-pox notifications we received two notifications of chicken-pox.

Vaccination.

Goole is a well vaccinated town. During 1902 595 births were registered. Of these 519 were successfully vaccinated, and 72 died unvaccinated.

1st January to 30th June, 1904, inclusive.

Births, as registered	...	...	...	...	284
Successfully Vaccinated	...	...	...	...	240
Insusceptible of Vaccination	...	...	...	...	1
Had Small-Pox	...	...	...	...	—
Conscientious Objections...	...	...	...	...	1
Dead, unvaccinated	...	...	...	...	41
Postponed by Medical Certificate	...	...	...	...	1
					<hr/> 284

Two certificates of conscientious objection received during the year 1904.

1st January to 31st December, 1903.

Copy of supplemental vaccination return posted to the Local Government Board, February 7th, 1905.

Births, as registered	...	...	...	...	635
Successfully Vaccinated	...	...	...	...	572
Insusceptible of Vaccination	...	...	...	...	1
Had Small-Pox	...	...	...	...	—
Conscientious Objections...	...	...	...	...	3
Dead, unvaccinated	...	...	...	...	55
Postponed by Medical Certificate	...	...	...	...	1
Removed to Districts the Vaccination Officers of					
which have been apprised	...	...	...	...	1
Removed to places unknown (not found)	...	...	...	...	2
					<hr/> 635

Total number of certificates of successful primary vaccination at all ages received during the calendar year 1904, 555.

14 copies of successful primary vaccination sent to other vaccination officers.

J. T. ROBINSON,
Vaccination Officer, Goole.

Feb. 7th, 1905.

In this connection I give the following extracts from the "British Medical Journal," Jan. 14th and Jan. 21st, 1905:—

"In public health matters, as in other problems, the field of statistics is often an uneven battleground, where contending sides seem to win and lose alternately. In regard to the question of vaccination and its protective influence against small-pox, however, the vastly overwhelming weight of statistical evidence has so long been on one side that it would appear needless to adduce further records in favour of vaccination. Nevertheless, the circumstances of a recent outbreak of small-pox among school children at Ossett, near Wakefield, furnish so striking an example that the details ought to be published for the benefit of that section of the community whose opposition to vaccination still survives. These details, which have been carefully investigated by the local Medical Officer of Health (Dr. Greenwood), and by Dr. Kaye, the County Medical Officer for the West Riding of Yorkshire, are briefly as follows:

"The undenominational school at Commonsides, Ossett, is a public elementary school with a mixed and infants' department. The latter is practically separate, while the mixed department consists of three rooms under the same roof, in which the number of scholars is as follows: Room A, 69; Room B, 74; Room C, 26; total, 169 scholars.

"On the 27th October, 1904, the schoolmaster observed a girl (L. B., aged 11), in Standard IV., with a suspicious rash on the hands and face. No time was lost in calling in the Medical Officer of Health, who promptly diagnosed small-pox, and caused the case to be removed to the hospital. Disinfection of the premises, vaccination of contacts, and all other precautionary measures were put in hand, but, as the subsequent events show, the infection had already been sown, and it bore fruit according as it fell upon good or bad ground.

"*Room A.*—The particular class in which the infected child was a pupil consisted of 27 boys and girls, ranging from 9 to 13 years of age. Their condition as to vaccination was as follows: Vaccinated and revaccinated, 6; vaccinated only in infancy, 13; unvaccinated, 8 (including the infected scholar). By November 10th (that is, the incubation period, or a fortnight from the discovery of the first case) every unvaccinated scholar in the class had developed small-pox, while every one of the others has escaped up to the time of writing (December).

"Other classes in Room A comprised in all 42 scholars whose condition as to vaccination was as follows: Vaccinated and revaccinated, 8; vaccinated only in infancy, 20; unvaccinated, 14. In due

course 12 out of the 14 unvaccinated ones went down with small-pox, only 2 escaping. Of those vaccinated in infancy, all escaped except 5, and these were all over the age of 11 years. All the revaccinated ones remained unaffected.

“*Room B*—In Room B 74 scholars were accommodated as follows: Vaccinated, 31: unvaccinated, 43. The exposure to infection in this room was relatively slight, being only due to the casual mingling of scholars in the approaches and in the playground. Nevertheless, 13 of the unvaccinated ones took the disease, while all those who had been vaccinated escaped.

“*Room C*.—This room was entirely devoted to Standard I., comprising 26 scholars, aged 6 to 9 years, whose chances of mixing with the older scholars of the infected Room A were naturally reduced. Fourteen had been vaccinated, and 12 were unvaccinated. All of the former escaped, while 4 of the unvaccinated ones took small-pox within the fortnight.

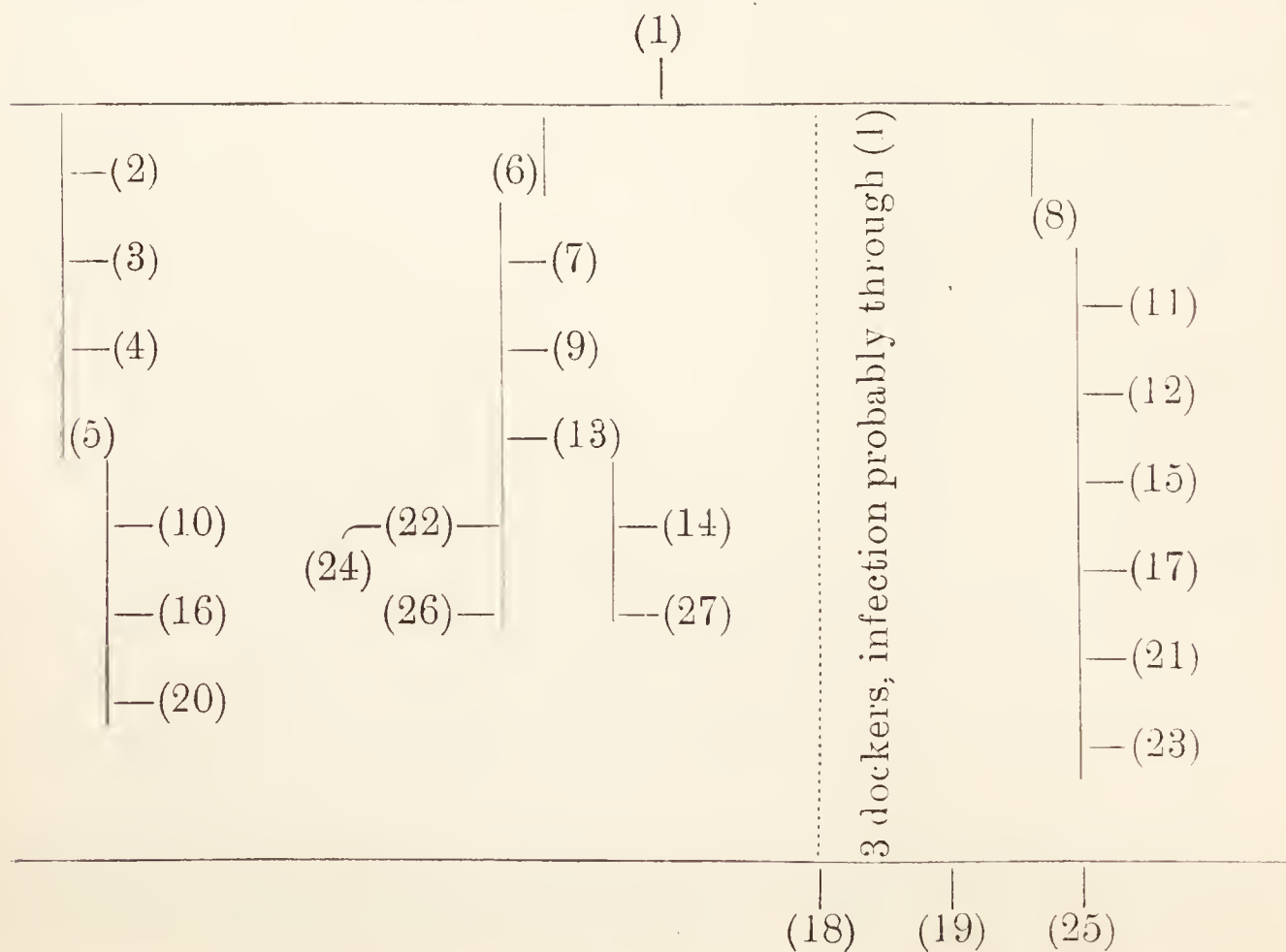
“Collecting all the figures into one table, we get the following interesting and instructive summary:

Room or Class.	Unvaccinated Scholars.		Vaccinated Scholars.		Total Scholars.	
	(a) Taking Small- pox.	(b) Escap- ing.	(a) Taking Small- pox.	() Escap- ing.	(a) Taking Small- pox.	(b) Escap- ing.
Room A:						
Standard IV, where first case occurred ...	8	0	0	19	8	19
Rem'nder of Room A	12	2	5	23	17	25
Room B	13	30	0	31	13	61
Room C	4	8	0	14	4	22
Totals	37	40	5	87	42	127
	77		92		169	

“How Dewsbury has suffered for its antivaccinal folly Dr. Wheaton's report shows. All over the Union small-pox has been

doing its dreadful work, and some of the local authorities appear to be in a condition of panic, others in a condition of paralysis. Hospitals intended for other diseases have been crammed full of small-pox. One of them was found by Dr. Wheaton to be in an almost incredible condition. Fetor, dirt, and flies abounded within and without ; but all the hospitals available even for other purposes, and even overcrowded as described, have been quite insufficient to meet the results of past defiance of vaccination. Scores of small-pox patients are described as lying in their own homes, where the conditions seem to be even worse than in the hospitals. The earliest attacked, when partially convalescent, have had to crawl out of bed to nurse the rest of the family in the acuter stages of the disease, and to perform necessary household duties. The Council in one township has been spending £50 a week for maintenance of the sick in their own houses. Men were employed to carry food to them, and to keep them under watch to prevent their escape into the general population, but these men themselves were not being vaccinated and were falling victims to the infection. In one instance, even in presence of such horrible conditions, a small-pox stricken father rejected vaccination for a child yet unattacked, who was in due time seized by variola. That, however, seems to have been an exceptional occurrence, as in most parts of the Union people have been rushing to medical men for the protection which they had so long omitted or derided, and hundreds were being operated on daily or weekly."

CHART indicating as far as practicable the probable lines of infection :



Not a single one of the patients had ever been revaccinated, and vaccination loses its efficacy after 10 to 12 years. Only one of our cases was under this age. The average number of days each patient was in hospital was 31.

Review of Cases.

CASE 1.—S. A. J., female, aged 28. Had headache and backache on Whit-Monday. Rash appeared 4th June; notified 16th June. When notified she had an abundant rash in the dry stage; she was removed at once to hospital. She was waited on by her sister, who subsequently developed the disease, and by a neighbour who keeps a grocer's shop next door. The neighbour formerly nursed her own husband when he had small-pox some years ago, which would account for them not developing the disease; and our patient had been assisting them in the shop, whilst she was actually covered with the eruption. We were able to have the shop shut up for a couple of days and disinfected. Her case was a typical one of the disease and was rather severe. She had no vaccination marks, but stated that she had been vaccinated in infancy.

CASE 2.—M. M., female, aged 29. Became ill 8th June, rash 12th June: notification 16th June, removed to hospital same day. She received the infection from her husband. When I visited her I found her two sisters from Laxton were in her bedroom. I at once wrote to the Medical Officer of Howden, who kept them under observation on their return home. One of the sisters subsequently developed the disease and gave it to her husband. She had been vaccinated in infancy, and had one vaccination mark $\frac{3}{8}$ inch in area. Her case was a severe one.

CASE 3.—J. W. M., male, aged 26. This man is the husband of the preceding case, and is a painter by trade. He became ill on the 24th May, and his rash appeared on the 29th May. He had been medically attended during his illness, but his case had not evidently been considered small-pox. He was off work part of two weeks, and had been back to work for a week, and had still the remains of the rash on his face. We traced five other cases from this source. He was notified, and removed to hospital on the 16th June. His case was not a severe one. He had been vaccinated in infancy and had three marks, with a total area of $1\frac{1}{8}$ inches.

CASE 4.—S. K., male, aged 33, sailor, became ill on the 28th May, rash appeared 31st May, notification on the 16th June. He also had been medically attended, and was not considered to be suffering from small-pox. He stated that he had been going about the town since the 10th June. He had not been vaccinated, and his was a severe case of the disease.

CASE 5.—M. A., female, aged 37, became ill on the 10th June, rash appeared on the 13th June. Notified 16th June, notification received 17th June. Case 3 had been painting at her house,

and we infer she received the infection from this source. She had two vaccination marks, with a total area of $\frac{3}{4}$ inch. Her case was not a severe one.

CASE 6.—J. C., female, aged 23, is a sister and helped to nurse Case 1. She became ill on the 12th June, rash appeared on the 16th, and she was notified on the 17th. She had three good vaccination marks, with a total area of $1\frac{1}{8}$ inches, and her attack was mild.

CASE 7.—A. M., female, aged 13, lived with and was a niece of Case 4. At night she slept at the caretaker's house of the Alexandra Street Board School. She was notified on the 19th June and removed to hospital. The Alexandra Street Schools were closed for a fortnight.

CASE 8.—C. K., female, aged 3 years, daughter of Case 4. She also was sleeping at the caretaker's house with the previous case. She was notified and removed to hospital on the 20th June. Her case was very mild. She had four good vaccination marks, with a total area of $\frac{3}{4}$ inch.

CASE 9.—G. T., male aged 21. Frequent visitor at the house of Case 2. He became ill on the 13th June and was stated to have pneumonia. A rash appeared on the 17th and he was notified on the 20th. He had four good vaccination marks, with a total area of 2 inches.

CASE 10.—A. S., female, aged 24, wife of Case 9, was notified on the 20th. Her attack was a severe one, and she had one vaccination mark, with an area of $\frac{1}{2}$ inch.

CASE 11.—J. K., male, aged 41, brother of Case 4. He was out on the 20th, the date of notification. His attack was a mild one, although he stated he had never been vaccinated, and had no marks of vaccination.

CASE 12.—S. W., female, aged 34. Infection received from Case 1, Notified 22nd; attack severe. Three vaccination marks, with a total area of $\frac{3}{4}$ inch.

CASE 13.—A. P., male, aged 42, next door neighbour to Case 4. Notified 21st. This patient's attack was of the severe confluent variety, and he died on the 30th after dreadful suffering. He kept a greengrocer's shop, which was closed, and compensation given on terms mutually agreed upon. He had two vaccination scars, with a total area of 6-16th inch.

CASE 14.—W. C., male, aged 28. Notified 23rd; attack severe; three vaccination scars; total area, $1\frac{1}{3}$ inches.

CASE 15.—G. C., male, aged 41. Notified 23rd; attack severe; two vaccination scars; total area, $\frac{1}{2}$ inch.

CASE 21.—G. S., male, aged 29. Notified 30th; attack severe; three vaccination scars; total area, $1\frac{1}{2}$ inches.

These three cases form a series. They were all dockers, and the infection was probably received through a woman, who stitched bags on the docks, and who was a visitor at the house of Case 1.

CASE 16—J. M., female, aged 40. Attack severe; notification received, 23rd. This patient lived two doors away from Case 1, and kept a small shop. The shop was shut up whilst she was in hospital (by request of her husband) and disinfected. She had two vaccination scars with a total area of $\frac{1}{4}$ inch.

CASE 17.—E. C., female, aged 23 years. Attack severe; notified, 24th; neighbour of Case 4; three vaccination scars with a total area of $1\frac{1}{2}$ inches.

CASE 18.—G. M., male, aged 20. Attack severe; brother of Case 2, but living in another part of the town. Notified 24th June. On my visit to the house, I found the patient covered with the rash, and sitting in the kitchen, two boys playing in the kitchen, the mother was out at a neighbour's, and the sister, who is a dressmaker, was out delivering a dress. He was stated to have been vaccinated when an infant, but had no vaccination scars.

CASE 19.—M. A. B., female, aged 73. She kept a shop four yards away from Cases 4, 13, and 21, and was one of our contact series. She was notified 25th, as suffering from chicken-pox, but was also seen, by permission of her medical attendant, by Dr. Reginald Farrar, who was holding a Local Government Board enquiry the same day, and on his advice she was removed to hospital. Her case was the only one of the series which presented a difficulty in diagnosis, and but for the fact that she was a contact might have escaped detection. She had a very mild attack. She had three good vaccination scars with a total area of $1\frac{1}{8}$ inches. She states she had a bilious attack on the 17th, and her rash appeared on the 20th inst.

CASE 20.—M. M., female, aged 49. Mother of Case 18; hers was a very mild attack; she had two vaccination scars with a total area of $\frac{1}{2}$ inch; notified 28th.

CASE 22.—A. B., female, aged 29; next door neighbour of Case 2; mild attack; two vaccination scars with a total area of $\frac{1}{2}$ inch; notified, July 3rd.

CASE 23.—T. C., male, aged 25. Attack severe; brother of Case 9; notified, July 3rd; he had two vaccination marks with a total area of 1 inch.

None of the whole series of 23, had been re-vaccinated, and although none of the staff of nine had ever had the disease, but were re-vaccinated before coming in contact with it, yet not a single one of them developed Small Pox and not a single "return" case of the disease occurred.

On the 27th June, Dr. Farrar, of the Local Government Board, held an enquiry in regard to the origin and spread of the epidemic, and expressed himself as satisfied, that the Council were alive to their duties, and that everything was being done to prevent its further spread. He afterwards visited, and examined, all the patients at the Small-pox Hospital.

On the 26th October, a letter was received from a property owner in the town, resident in Essex, offering a contribution to the medical service for their efficiency in dealing with the recent epidemic of Small-pox in Goole.

In reply to that communication, a letter of thanks was sent to the writer from the Council, thanking him, and giving him the names of the charities in the town, to which he replied by sending a donation of three guineas to the Cottage Hospital. This is gratifying, more especially when we see what has happened at Dewsbury, in reference to which the "Yorkshire Post," of November 2nd, states that "The epidemic will be remembered chiefly as a form of reproach to those responsible for the Public Health."

This cannot be said of the Goole Council, and I take this opportunity of expressing my thanks to the members for the whole-hearted way in which they supported us, and results have proved the wisdom of the measures adopted.

The details of the cost of the epidemic are as follows :

	£	s.	d.
Salaries—Nurses and Caretaker ...	19	2	11
Wages—Workmen (tent and bridge) ...	16	5	2
Washing	1	8	6
Timber for Bridge	9	6	0
Provisions	32	18	5
Horse hire	5	12	10
Purchase of Second-hand Cab ...	3	18	0
Drugs... ..	4	5	0
Ironmongery	5	10	4
Coal and Wood	4	6	7
Bedding and Draperies	24	11	9
Printing and Stationery	2	19	4
Disinfectants and Soap	2	6	10
Compensation to Patients	9	18	7
Tent and Cover	77	0	5
Disinfector	35	0	0
Bedsteads	28	2	6
Bath and Pan	5	1	6
Medical Attendance	48	6	0
Sundries	3	0	2
Grant to Nurse	8	0	0
Grant to Inspector	8	0	0
	<hr/> £355 0 10 <hr/>		

MEASLES.

In September one death was registered as due to Measles, and as a result of enquiry I found that measles was epidemic in the South Ward, and fresh cases were developing in the other wards of the town. This proved the beginning of the most severe epidemic of this disease Goole had ever experienced. In all, 45 deaths were caused by it, probably representing nearly 1,000 attacks. As measles is not a notifiable disease, our difficulty lay in getting information regarding it. Mr. Harrison, the attendance officer at the schools, very kindly gave me a weekly return of children absent. To all of these I sent the Assistant Inspector with instructions to leave a printed handbill containing directions as to the prevention of measles, etc., at every house where he found there was a case.

These returns were as follows :—

Week ending 30th September	...	...	208 cases.
„ 7th October	...	...	336 „
„ 14th October	...	...	430 „
„ 21st October	...	...	496 „
„ 28th October	...	...	527 „
„ 4th November...	...	...	490 „
„ 11th November...	...	...	628 „
„ 17th November...	...	...	390 „
„ 24th November...	...	...	268 „

The outbreak was not limited to any particular school, but was spread over all the elementary schools in the town, and I made several special reports to the Council on the subject.

Measles ranks as the third most fatal disease among the eruptive fevers, and is one of the most serious diseases amongst children. Parents unfortunately treat it very lightly in many instances. Being a non-notifiable disease, our hands are in a large measure tied. Two courses are open. 1. Notification. Very few Councils will be found to adopt this course on account of the expense.

2. The alternative course would then be the appointment of a local medical man to act as medical officer to schools, with the object of checking the spread of infectious disease amongst school children. It is of the greatest importance to check such diseases as measles, which frequently occur in schools, both from the generally recognized point of view of their injurious influence on school attendance, and from the more important one of the after effect of these diseases on their victims. An attack of measles, for instance, “may produce a great depression of mental and physical power, lasting many months, even when no complication, such as chronic disease of the eye or ear, occurs, or pneumonia and death.”

Compulsory education brings every child to the school benches, and it is the duty of the school authority to do everything possible to protect the health of the children, and in particular to prevent

schools acting as centres of infection. At present we are powerless with regard to measles, which has raged as a scourge amongst the children of the town. Whilst Article 101 of the Code was in force the teachers sent me in weekly lists of children absent on account of infectious disease. This is now abandoned. Only those of us whose duty takes us into the homes of the people can form any idea of the amount of suffering that has taken place amongst the helpless children through no fault of their own. A very common condition was to find in a small cottage a young mother with her baby at the breast, and one, two, or three children, as the case might be, coughing and crying for their mother. And then we must remember that the population of Goole is largely composed of families such as this. Isolation here is out of the question, with the result that the disease spreads amongst all the children of the household. In one house during one week there were three deaths from measles.

Contrast this with a case of scarlet fever and see what notification does. Failing notification the only way to get knowledge of the early cases would be the appointment of a local medical man to make periodical visits of inspection to the different schools, on the American plan.

The Council passed a resolution, which was forwarded to the Education Authority, asking that this be done, in reply to which the following somewhat extraordinary letter was received:—

“The recommendation of the Goole Urban District Council that a medical inspector be appointed to make periodical visits of inspection to the elementary day schools within the Urban District has been considered by the Education Committee.

“The Committee are advised by the County Medical Officer that a trained teacher on the spot, in conjunction with the local and central public health machinery, could usually render all the service that is possible; they are therefore unable to agree to the proposed appointment.”

SUMMER DIARRHOEA.

Fifty-seven deaths were registered as due to zymotic or summer diarrhœa. The figures obtainable for comparison are the following:—

1889	...	...	...	...	...	2 deaths.
1890	...	...	...	...	...	16 „
1891	...	...	...	...	...	4 „
1892	...	...	...	...	...	3 „
1893	...	...	...	...	...	34 „
1894	...	...	...	...	...	4 „
1895	...	...	...	...	...	11 „
1896	...	...	...	...	...	13 „
1897	...	...	...	...	...	26 „
1898	...	...	...	...	...	17 „
1899	...	...	...	...	...	18 „

1900	...	...	...	...	...	21 deaths.
1901	...	...	...	...	...	29 „
1902	...	...	...	...	...	10 „
1903	...	...	...	...	...	10 „
1904	...	...	...	...	...	57 „

I can recall no similar instance of such a fatality from diarrhœa in Goole. By means of a public lecture I endeavoured to draw the attention of parents to the subject, and advised them as to the best means towards prevention of the disease. The registrar of births continued the distribution of the Council's handbills containing simple directions on the rearing of infants, and we also had handbills circulated containing directions as to the prevention of summer diarrhœa.

The late Dr. Ballard, in his famous report on summer diarrhœa, arrived at the following conclusions :—

“The summer rise of diarrhœal mortality does not commence until the mean temperature recorded by the 4-foot earth thermometer has attained somewhere about 56 degrees Farenheit, no matter what may have been the temperature previously attained by the atmosphere or recorded by the 1-foot earth thermometer. The decline of the diarrhœal mortality coincides with the decline of the temperature recorded by the 4-foot earth thermometer, which temperature declines much more slowly than the atmospheric temperature or than that recorded by the 1-foot earth thermometer.”

The micro-organisms producing summer diarrhœa, therefore, are most active in the third quarter of the year, and their activity is unmistakably associated with certain great conditions, viz., a high temperature, a low rainfall, a high soil temperature, and a polluted soil, upon which follow pollution of atmosphere, and of milk and other foods. What part flies play in the propagation of this pollution has not yet been determined, and Dr. Nash has drawn attention to this phase of the subject. It does not require a very great stretch of the imagination to conceive that in a town like Goole, with its unpaved back streets and box closets, and remembering the plague of flies we suffered from during the past summer, how they would be a ready means of contaminating any food, such as milk, etc., which had been left exposed. Flies settle on dirty refuse heaps, closets, napkins, etc., and then settle on the food or tumble into the milk. Hence, to prevent infants from getting diarrhœa from milk, it is necessary to first boil all milk directly it comes into the house, put it into clean vessels, and cover over and keep it as cool as possible. Cleanliness in every detail is the great preventative measure against diarrhœa. Milk is a wholesome but unstable food, and it is the one chief animal product which is most frequently taken raw. It forms

a favourable bed in which disease germs develop and grow. The sterilisation of milk is a method of preparing milk for infants by destroying all disease germs which may be present in the milk, and preserving the milk sweet, and pleasant, for an indefinite period. A simple method for the sterilisation of milk is to place the milk in a suitable apparatus and heat the same to 230 degrees F., and keep the milk at that temperature for ten minutes. A simple form of steriliser can be obtained from any chemist at a small cost. Another point I should like to refer to. Some mothers think that all that is required to cure the children is "a bottle of medicine," which they think is all powerful, and resent any instructions as to feeding, although most probably it is improper feeding which is at the root of the matter. I made enquiries into 53 of the deaths, and found that out of this number 44 were bottle fed and only 9 breast fed. This tells its own tale.

The deaths were distributed all over the town, the West Ward having considerably the smallest percentage.

A very noticeable feature of the meteorological table at the end of the report is the very small rainfall.

It has been found that more than 100,000 deaths occur every year in Great Britain that might, with proper care, be prevented. How many such in Goole, one wonders? Sir Spencer Wells took the average cash value of human life of each person at about £150.

A recent traveller from the Orient, we learn from a medical journal, has shown that the infant mortality of Japan is lower than it is with us. This is as it should be in a country where the houses are off the ground a foot or two and have no cellars, and the air inside is as fresh as it is out; where, too, in such places at least as Tokio, everyone bathes and has a good scrubbing every day. From 800,000 to 1,000,000 persons go to the public baths of the capital daily, and that in a town with a population of less than 2,000,000. The extreme cleanliness of the Japs undoubtedly has a great deal to do in keeping the death rate among children so low.

DIPHTHERIA.

Forty-six cases of diphtheria and membranous croup were notified during the year, with four deaths.

The recent epidemic abated in October, 1903. No cases were notified in November; no cases in December; 2 cases in January, 1904; no cases in February; no cases in March; no cases in April; no cases in May; 5 cases in June; 2 cases in July; no cases in August; 2 cases in September; 2 cases in October; 21 cases in November; 12 cases in December.

Up to the end of October the cases were all sporadic, or isolated. October and November are considered the two most fatal months for diphtheria. At the beginning of November we were threatened with an epidemic, the history of which is as follows :

Their analysis shows them to be grouped around two centres, one in the South and the other in the East Ward.

Taking first the South Ward, on Sept. 26th a case was notified from 33, Foundry Lane, in a house where they had the disease last year. On October 27th another case was notified in the next street, *i.e.*, at 7, Bridge Street. The next case was notified on November 6th, a few yards away, in Capstan Street. These, as will be noticed, were isolated cases, with a considerable time intervening between the notifications. Then on November 11th 5 notifications were received from one household of six persons. The first intimation of these cases was due to the fact that a sudden death had occurred from the disease before a doctor was called in, and formed the subject of a coroner's inquest. Our next case in this neighbourhood was at 10, Calder Square, on the 15th of the month, and up to the end of the year we have had cases in the following order:—Nov. 21st, 53, Doyle Street; Nov. 22nd, 31, Vermuyden Terrace; Nov. 25th, 23, Foundry Lane; Nov. 26th, 23, Foundry Lane; Nov. 28th, 7, Doyle Street; Dec. 1st, 1, Dock Street (3 cases); Dec. 5th, Foundry Lane; Dec. 6th, 21, Foundry Lane; Dec. 13th, 1, Dock Street. This is a summary of the cases in the South Ward, with the single exception of one case on December 3rd, at 23, Humber Street, in which I could trace no connection with the others. All these cases were removed to the sanatorium. The houses were fumigated at once, and the other children of the household detained from school and the school authorities notified. All attended the Old Goole Board School. I visited the schools several times, and the different rooms were fumigated on several occasions.

The remaining cases were situated round a centre in the East and Central Wards, where they adjoin, and here again the children attended a particular school, *i.e.*, the National School. The first cases were two at 3, Cross Stanley Street, on Nov. 9th. Then on the 18th another case next door, at 12, Stanley Street. The next one was notified on the 21st at 13, Phoenix Street—a boy in the same class at school as the first one, and finally, then, on the 23rd, we had their teacher notified, who lives at 26, Jefferson Street. Afterwards, on the 5th Dec., another boy at the same school was notified from 12, George Street, and another child at 27, Hook Road, notified on the 10th.

With regard to the remaining cases, one case at 109, Lower Bridge Street, Central Ward; one case at 62, Marlborough

Avenue, North Ward ; one case at 63, Jackson Street, North Ward ; one case at 25, Ouse Street, Central Ward ; and a nurse at our own hospital, do not call for special comment, as they were sporadic cases, and no fresh ones developed from them.

Climatic conditions doubtless were an important factor, as the weather was very mild for the time of year, coupled with a very small rainfall. In the middle part of the month, however, we had a short period of frost and snow. An interesting feature is the fact that many of the cases followed measles.

The above record illustrates our methods in dealing with infectious disease, and we may congratulate ourselves on the result, as with the closing of the schools for the Christmas holidays we were able to effectually arrest the epidemic, no further case being notified up to the end of the year.

Our experience of diphtheria amongst children teaches us to regard it as a very contagious disease, like small-pox, and our methods of dealing with it are almost as thorough in the one as the other. I attribute our success in arresting its spread entirely to the manner in which we deal with the contacts.

Erysipelas.

In connection with a case of erysipelas notified from the women's ward of the Cottage Hospital, I wrote to the committee suggesting certain improvements in the hospital which had been required for some time. The committee seized the opportunity of taking the matter up, and a conference was held with the trustees, resulting in a proposal being set on foot to effect a most necessary improvement in the wards of this excellent institution.

Three broad principles should guide future alterations.

(1) A corridor right through the centre of the building, with separate pantry and larder, having windows opening to the outside.

(2) Having the apartments of the matron and staff on the south side of the building.

(3) Utilizing the present women's ward for out-patients and building a new women's and children's ward, either as a third storey or on additional ground.

Scarlet Fever.

Thirty-six cases of scarlet fever were notified during the year, with no deaths. Only nine deaths have occurred from this disease during the last nine years, although during that period 463 cases were notified, a very strong point in favour of notification.

Enteric Fever.

Six cases of this disease were notified during the year, with two deaths. This is a very favourable part of my report, and does not call for further mention.

Respiratory Diseases.

There were 60 deaths from pneumonia, bronchitis, and pleurisy, giving a respiratory death rate of 3·5.

Cancer.

Six deaths were registered as caused by this disease, as against 25 in 1903 ; 12 in 1902 ; 7 in 1901 ; and 16 in 1900.

Consumption.

There were 14 deaths from phthisis or pulmonary tuberculosis, and 27 from other tubercular diseases, giving a death rate from the diseases caused by tubercle of 2·4, and from consumption of the lungs of ·8.

Table shewing the Comparative Number of the principal causes of Death during the year 1904 :

Diarrhœa	57	deaths.
Old Age	54	„
Measles	45	„
Pneumonia	38	„
Heart Disease	32	„
Other Tubercular Diseases...	27	„
Bronchitis	22	„
Accidents	15	„
Consumption	14	„
Premature Birth.....	14	„
Cancer	6	„
Diphtheria.....	4	„
Whooping Cough	2	„
Typhoid.....	2	„
Small-pox	1	„

GLANDERS.

Two intimations were received from the Superintendent of Police of the presence of Glanders in horses about to be shipped from Goole. The horses were slaughtered and all necessary precautions taken.

MILK SUPPLY.

During the year 1903 I called the special attention of the members of the Council to the question of the supply of milk to the town. Along with the Inspector I visited and inspected all the cowsheds in the Urban area. The Council have since passed a new set of bye-laws issued by the Local Government Board under the Dairies, Cowsheds and Milkshops Act of 1885, which are awaiting confirmation.

During the year 1904 the Goole Rural District, which had hitherto no bye-laws regulating the milk supply in their district, adopted a set of bye-laws for this purpose.

In the wet summer of 1903 we had 10 deaths from summer diarrhœa, following which we had the hot and dry summer of 1904, with its tale of 57 deaths from this disease, all in children under five years of age.

A striking feature about these deaths was that in each instance they occurred amongst the children of the working classes, and in 53 of the cases whose history I investigated no less a number than 44 were bottle fed.

In repeated discussions which are reported in the papers as taking place on this subject, the onus for this sacrifice of life is placed on the milk supply, and remedies are suggested mainly in the direction of municipal ownership and supply. I fail to see how this could be carried out, at any rate in towns like Goole, and I am not convinced that this is the remedy. Opinions seem to be agreed that contamination of the milk is the great factor in the causation of the disease. Granted this fundamental fact our duty is to try and find out how contamination takes place. Our milk supply is fairly constant all the year round. Whilst we impose conditions on the dairymen and cowsheds in our own area, we are debarred from so acting in areas out of our own district, from which our principal supply comes. This duty belongs mainly, if not entirely, in our case, to the Goole Rural Council. The disease is called summer diarrhœa because it only occurs during hot summer weather, so that meteorological conditions underlie the causes giving rise to the contamination of the milk; as evidence of this compare the wet summer of 1903 with the hot one of 1904, as already referred to.

In last year's report I quoted the following:—"It is not so much a matter of cubic capacity of cowsheds, or special mode of ventilation (though these matters have importance), as it is of clean dairying, clean cows, clean milkers, clean methods, clean utensils, and clean storage prior to use."

All during the summer of 1904 we made repeated inspections in regard to all these points, and numerous samples of milk were taken for examination—including bacteriological. We invariably found the milk dealers anxious and willing to carry out our requests, and with one or two minor exceptions the members of the Council aided our efforts also.

We might go a step further in this direction, and copy the example of Torquay, by making an inspection of all dairy farms supplying milk to Goole, adopt regulations for this purpose and issue a printed notice once or twice a year, giving the names of all milk dealers whose farms and dairies have been inspected.

The next point I would suggest is this: That we persuade the milk sellers, especially in the summer months, to provide mothers, requiring milk for their babies, with milk that had been cooled down to a temperature of 40° F. immediately after milking, and then *b t led*—stoppered bottles can be obtained for the purpose, and the bottled milk kept at a low temperature until it is delivered to the consumer. I would further suggest that during the summer months the Council themselves might establish a small dairy for this purpose. The cost would be very small; certainly nothing in comparison with some of the methods in vogue in other towns. It would be carried out under our supervision, milk could be obtained night and morning from a reliable source at wholesale prices; the plant for cooling purposes need not be elaborate, and the stoppered bottles cost about one penny each. A central position could be obtained in the town, where the consumers would be able to buy this milk night and morning.

In the various discussions which have taken place on this matter all over the country, one most important factor has been overlooked, and that is the question of the people themselves. Cleanliness in every detail is the great preventative measure against diarrhœa, cleanliness not only in the milk which is brought into the house, but cleanliness after it is brought into the house of the consumer.

In my address to parents I endeavoured to emphasize this point. As soon as milk is brought into the house during the hot weather it should be boiled, after boiling placed in clean vessels and covered over, and then kept as cool as possible by placing the milk jug in a basin of cold water.

We had printed at the very beginning of the summer 1,000 handbills, giving directions as to the prevention of diarrhœa amongst infants; these were distributed in houses which contained small children. At the beginning of the financial year of the Council's work I requisitioned for them amongst other small things, and was instructed to obtain them at a stated contract price. This I carried out to the letter. It can be readily seen that in a matter like this delay is serious, and that I am the responsible official to have them issued at the proper time.

HOUSE ACCOMMODATION.

“House accommodation, especially for the working classes: its adequacy and fitness for habitation.” During the year the houses in Red Lion Row have been permanently closed, and will not be again used for habitation. The Council have bought 42 dilapidated houses in Mason Terrace and Edinburgh Street.

This formed the subject of a Local Government Board enquiry, and permission was granted to pull these down and erect an electricity station on the site.

It must be gratifying to members of the Council to know that their action in regard to the improvement of back streets has given so much satisfaction, and I am glad to be able to record that this work continues to be carried on. It should only cease when all the back streets in the town have been done.

We are continually receiving complaints as to nuisances caused by pig-keeping. At the request of the Council the Sanitary Inspector made a detailed report on all the piggeries in the town, with the result that notices have been issued informing the people that after four months no piggeries will be allowed in nearer proximity to a dwelling-house than 30 feet, the distance specified in the existing bye-laws. The carrying out of this bye-law has been rather lax in the past. This action of the Council is a very fit and proper one, and can entail no hardship on pig-keepers. In my previous report I have referred to our difficulties in restraining people from building outhouses of different kinds right up to their back doors, and so encroaching on the sufficiency of open space about their homes. Now the attention of the public has been drawn to the matter we hope that we shall be able to have this practice discontinued.

Eleven new houses have been built during the year in the West and East Wards.

The Surveyor exercises supervision over the erection of new houses. Plans have been passed for the erection of 19 new houses in the East Ward.

Several important new bye-laws will come into operation next year, and I must again refer to the Council's tip in Fifth Avenue, where road scrapings, rubbish, &c., are tipped on land which is likely to be a building site in the near future. One of the most necessary reforms at the present moment is the prevention of the erection of dwelling-houses on slob land until it has been declared fit by a sanitary expert, and the revision of the building bye-laws, with special reference to the necessity in a town like Goole, of including a bye-law to the effect that the whole surface of the site of a new building should be covered with a layer of concrete.

SEWERAGE AND DRAINAGE.

The Surveyor has kindly furnished the following details:—

During the latter six months of the year, systematic cleansing of the sewers and drains has been inaugurated. Through periodical examination it has been ascertained how long each individual drain will work without attention, and the result noted. The drains have then been flushed at such shorter intervals as do not allow them to become offensive or blocked.

There are some streets in which the sewers, on inspection, will always appear objectionable, through the much-to-be-condemned practice of connecting pig-stye drainage to them; these sewers, after cleansing, again appear full of filth, either floating or adhering to the sides, in a very few days.

The deposit from the larger sewers has been removed once; this work done at intervals of 12 months is all that is necessary.

Plans of a Building Estate in the Marshfield District have been approved, the gradient of the sewers shown being on an average 1 in 500. Flushing tanks are provided.

This sewage will eventually reach the River Ouse by way of the Hook sewer.

The large flushing tank at Old Goole has again been brought into use, with very good results, the effect not only being local, but extending down the Swinefleet Road to the Dutch River outfall.

The Urinals of the district have been thoroughly flushed and disinfected twice daily.

The sewers and drains of the town are at the present time sufficient, as regards a connection to every house and the capacity of the sewers themselves.

Condition of Sewers and House Drains.

The sewers and house drains have during the last year been maintained in good condition, systematic flushing and cleansing having been adopted. Any deposit in the larger sewers has been removed by hand.

Method of Disposal of Sewage.

The method of sewage disposal adopted is the turning of the crude sewage into the tidal waters of the Rivers Ouse and Don.

Localities where Improvements are required.

No special locality can be singled out as requiring improvement, except that portion of the Hook drain between the North-Eastern Railway and Marlboro' Avenue, which is a stagnant watercourse, and during the hot weather becomes offensive. It should be covered in, so as to form a continuation of the Hook sewer.

WATER SUPPLY.

During the year the water supply of the town has been greatly augmented.

At the construction of the works at Pollington, three years ago, when the well and borehole had been sunk altogether to a depth of 215 feet, there appeared to be such an abundant supply of water that the engineer advised the Council to abandon for the time being their original plan of constructing adits, as they could be added in the future when found necessary.

The constant yield of water has been 433,034 gallons per diem, which has been sufficient up to the present time to supply the wants of the town, and equals about 25·4 gallons per head per day of the population.

The Council, however, has felt that there should be an ample margin not only over their present requirements, but for a possible increase of population.

An adit has therefore, during the year, been driven from the well to a distance of 200 feet, at a depth of 80 feet, and a borehole sunk at the end of it to a total depth of 356 feet, with the following satisfactory result: that after 14 days' incessant pumping the yield was 824,649 gallons per diem, equal to about 48½ gallons per head per day for a population of 17,000. The rock has proved to be firm and free from fissures, consequently there has been no trouble from loose sand getting into the adits or pumps, a source of great inconvenience to other works in the district.

It was feared that as the boring went deeper the water might prove harder and of inferior quality, but as the work proceeded I made frequent analyses and found it to maintain the same excellent quality, and to become even softer. At the time of writing I have just made an analysis of a sample taken from the tap in my laboratory and find the hardness to have increased from 9 degrees (according to Clark's scale) to 11 degrees.

The town is to be congratulated on the result, for not only has it obtained an ample and wholesome supply, but there is every evidence that on the same site it can with a comparatively small expense be greatly increased should the growth of the population demand it.

Mr. Franklin has kindly furnished me with the following particulars of the strata passed through in the boring:—

	ft.	in.
Top Soil	0	9
Gravel	0	9
Light Sand.....	4	0
Marl	0	6
Dark Red Sand	1	6
Light Red Sand.....	15	6
Marl	2	0
Sandstone	82	9
Marl	1	0
Sandstone	47	0
Sandstone Pebble Beds	142	0
Light Sandstone	2	0
Very Dark Sandstone	3	0
Red Sandstone	53	3
Total.....	356	0

HOSPITAL REPORT.

“Methods of dealing with infectious diseases: Notification; Isolation Hospital Accommodation and its sufficiency; Disinfection.”

On the receipt of a notification of infectious disease the inspector and myself make a visit of inspection. I have had printed across the notification forms a query to be answered by the doctor in attendance, viz: Is removal to hospital desired? The answer to this question makes matters work smoothly, as I cannot remember a single instance in which we did not act on the medical attendant's wishes. If the patient is to be removed to hospital I sign an order to this effect, and send it to the matron at the sanatorium, who at once makes the necessary arrangements. After the patient is removed the bedding, etc., is also removed for steam disinfection, and then the house itself is fumigated with formalin or sulphur. At both the sanatorium and small-pox hospitals we have separate ambulances and disinfectors.

No further action appears to have been taken with regard to the provision of a joint hospital for the rural and urban districts. The present one, so far as accommodation is concerned, is quite sufficient for our purpose, but it is my duty to record that the Urban Council received notice at the beginning of the year 'to quit' and immediately formed a committee, which met another committee from the Rural Council several times during the year and agreed on provisional terms for a Joint Hospital scheme. The Guardians, however, seem to have allowed the matter to drop, but I fear the Local Government Board will insist on them taking over our present hospital for their own needs.

For particulars of cases and expenditure at the small-pox hospital, see under small-pox in another part of my report.

At the sanatorium during the year 79 patients were treated.

Scarlet fever: 30 cases admitted, 6 of which were severe, and all recovered. Diphtheria: 29 cases were admitted, of which 15 had severe attacks and were a severe tax on the staff. One was a patient 'in extremis,' on whom tracheotomy was performed and recovered; 7 had heart complications, and 7 had various paralyses. There was a total of two deaths, one from heart paralysis and the other from toxæmia.

Membranous Croup: 3 cases admitted, one a tracheotomy case and all recovered.

Typhoid: 5 cases admitted, 4 of whom had severe attacks; 3 deaths occurred, 1 from toxæmia and 2 from intestinal perforation.

Summary and Analysis.

Cases in hospital January 1st, 1904	...	...	...	...	12
Number of patients admitted	...	...	...	...	67
Discharged cured	...	...	...	...	68
Died	...	...	...	...	5
Remaining in hospital December 31st, 1904	...	...	...	...	6
Number of days the patients were in hospital	...	...	...	...	2560
Average number of days each patient was in	...	...	...	...	32½
Average cost per day for treatment, maintenance and nursing	...	...	...	...	3/1
Average cost per day per person in hospital	...	...	...	...	1/8¼

Total expenditure for the year according to the

matron's house-keeping book	...	...	£399	3	3
Estimate for the year	...	...	£600	0	0

Details of expenditure from 13th January, 1904 to 10th January 1904, on which the above figures are calculated :

	£	s.	d.
Soap	3	7	6
Baker...	12	11	5
Butcher	37	13	5
Grocer	58	12	9½
Milk	13	18	2½
Greengrocer	16	5	5
Draper	15	15	6½
China...	1	7	1
Salaries	132	13	11
Chemist	13	13	11
Ironmonger	10	8	1½
Dressmaker	1	13	6
Advertisements	0	9	6
Stationery	0	7	0
Wood	0	9	0
Extra nurses	22	8	6
Wines and Spirits	3	6	0
Washing Machine	3	15	0
Sterilizer	0	10	0
Gas, Water and Coal	61	2	9
Deduct service paid paid for by doctors	11	5	4
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Total	£399	3	3

So far as I have access to the hospital accounts the above particulars will afford the members an opportunity of scrutinizing the expenditure at the hospital during the year, and the hospital committee must feel gratified with the result. In the future all hospital bills should be sent direct to the matron at the sanatorium before being presented to the committee, so that we may be able to verify them and enter them on our books. I have great pleasure in recording the high opinion I entertain of the manner in which the

matron, Miss Rosalyn Wright, discharges her duties. Whilst the patients have everything they require in the way of treatment she is most careful in every detail of the management, which is done most economically. Whilst our estimate for the year amounted to £600 our actual expenditure has been only about £400, so that for the coming year the estimate may safely be put down at £500, which gives an allowance for contingencies.

The expenses at the two hospitals during 1901 was £1097 15s. 9d ; 1902, small-pox hospital, £128 19s. 0d., sanatorium, £970 5s. 9d. ; 1903, small-pox hospital, £126 4s. 3d., sanatorium, £603 7s. 6d. ; and 1904 at the sanatorium, £399 3s. 3d., with an extraordinary expenditure at the small-pox hospital of £355 0s. 10d., towards which only £100 was the estimate.

METEOROLOGY.

Councillor Grayburn has kindly furnished me with the following particulars :—

Rainfall.					Temperature.		
Month.	Total Depth.	Greatest fall in 24 hours.		Number of Days on which .01 or more fell.	Max. ^o	Min. ^o	Mean. ^o
	Inches.	Depth.	Date.				
Jan.	1·79	·41	8th	16	52	28	38
Feb.	3·20	·75	4th	24	51	29	38
March	1·67	·39	15th	20	57	28	40
April	1·94	·44	15th	15	62	34	49
May	2·40	·86	31st	17	75	38	53
June	1·04	·39	1st	5	80	46	59
July	2·08	·60	24th	11	85	49	65
August	3·39	1·02	23rd	14	92	45	62
Sept.	1·20	·46	3rd	12	77	42	57
Oct.	1·28	·75	1st	12	68	34	51
Nov.	1·21	·29	23rd	15	58	24	42·3
Dec.	1·36	·21	10th	16	55	21	42
Total	22·56			177			

TABLE C. 1904

GOOLE URBAN SANITARY DISTRICT.

Medical Officer of Health—ALEXANDER M. ERSKINE, M.D. Salary £80.

Sanitary Inspector—WM. HENRY ELLIS. Salary £100.

What other positions does the Sanitary Inspector fill? Canal Boats Inspector, Cowsheds and Dairies Inspector, and Petroleum Inspector.

WATER SUPPLY—Quality .. 11° of hardness. Action on Lead .. None.

Any extensions or change during 1904? .. Another well sunk.

Any inadequacy in any part? No.

SEWERAGE—Is the district systematically sewered? .. Yes.

Is rainfall from roads excluded? No.

EXTENSIONS OR IMPROVEMENTS DURING 1904.

Sewers—None. Manholes—None. Ventilating Shafts—None.

Any inadequacy, and where? No.

SEWAGE DISPOSAL—System adopted Outfall into river.

Any extensions in 1904? .. No.

Any complaint in neighbourhood of sewage works? .. No.

SCAVENGING—Are the privy-middens, ash-places, etc., cleansed by

Sanitary staff, by Contractors, or by Owners and Tenants? By Contractors.

Any inadequacy of scavenging? No.

ADOPTIVE ACTS—

Acts adopted during 1904 (or parts) None.

Any diseases added to Notification schedule, e.g., Measles, Chicken-pox, &c.? Chicken-pox for three months.

Any system of voluntary notification of Phthisis? No.

BY-LAWS—Any adopted or) (a) Under the Public Health Act, 1875 No.
sanctioned during 1904) (b) under the Public Health Acts (Amendment) Act, 1890 No.

Regulated Buildings, Trades, &c.	No. in District.	No. on Register.	No. Inspected.	General Condition.
Common Lodging Houses	4	4	4	fair.
Canal Boats .. ..	..	849	112	generally good
Slaughter Houses	4	4	4	satisfactory.
Cowsheds	10	10	10	clean and tidy.
Offensive Trades	4	4	4	very good.

COWSHEDS—Give date of Regulations in force under D.C.M. Order .. 1887.

Any special inspection made during 1904? No.

Any action taken by outside Authorities, e.g., under 'Milk Clauses' concerning milk supplied from this district? No.

INFECTIOUS DISEASE—What disinfecting apparatus is available? Thresh's Emergency Disinfectors.

How are dwellings disinfected? By formalin and sulphur.

Any placards or handbills issued during 1904? Yes.

SCHOOLS—

No. closed during 1904 on account of sickness One.

Total duration of such closure Two weeks.

Any ailment or contagious disease associated particularly with school life during 1904? Measles and Diphtheria.

FACTORY AND WORKSHOP ACT—

No. of Workshops in the district as per Register 92.

No. of inspections made during 1904 .. 237. Legal proceedings .. None.

No. of Bakehouses included in above 11.

No. of Underground Bakehouses in district None.

No. of Domestic Workshops None.

No. of Domestic Factories in district None.

No. of Lists of Outworkers' received .. 0, representing 0 outworkers, and 0 contractors.

Any action as to unwholesome or infected Outworkers' premises? .. None.

DWELLINGS—Number of houses built during 1904..	..	..	..	..	11.
General character .. .. .	..	..	..	..	villas and cottages.
Any houses unfit for habitation? .. .. .	..	..	..	..	Yes.
Any overcrowding of persons in houses?..	..	..	..	..	2.
Any action taken under the Housing of the Working Classes Acts?	..	..	..	..	No.
Is house-to-house inspection systematically made?	..	..	..	..	No.
Are records kept? .. .. .	..	..	..	..	Yes.

NUISANCES—

Total No. of Nuisances in hand at close of 1903 ..	8.	At close of 1904 ..	6.
Reported during 1904	225.	Abated during 1904 ..	366.
Total No. of Legal Notices served for Abatement of Nuisances during 1904..	12.		
Total No. of Summonses or other Legal Proceedings ..	..	..	None.
No. of Sink wastes disconnected during 1904 ..	..	..	4.
" " " trapped ..	..	..	2.
No. of Closets newly constructed during 1904 ..	19	Kinds..15 W.C.'s, 4 box closets.	
,, reconstructed ..	24	Kinds.. 20 earth closets, 4 W.C.'s.	

METEOROLOGY—Mean Temperature for Year 1904.	49·7	Rainfall ..	22·56.
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What action has been taken in regard to the following matters?

Seizures of Unsound Food	6.	Prosecutions..	None.
Samples under Sale of Food and Drugs Acts..	17.	Prosecutions..	None.
Has there been any poisoning during 1904 attributable to arsenical beer, ptomaines, or lead contaminated water?	..	..	No.
River Pollution .. .. .	..	..	None.
Smoke observations taken..	None.	Legal Notices..	None.
Burial Grounds—No. in District ..	2.	Summonses ..	1.
		(a) extension ..	No.
		(b) closure ..	No.
Mortuaries—No in District (a) for accidents ..	One.	(b) other ..	One.

BIRTHS DURING 1904—Males	287	Females	280.	Total ..	567.
Number illegitimate, included in the above ..	..	..	..	..	23.
No. of Still Births (not included) .. .. .	..	..	..	..	Not Known.

DEATHS DURING 1904—(1) Gross Deaths, <i>i.e.</i> , Total actually registered in the district, without any correction ..	..	..	..	394.
(2) Nett Deaths on which the rates are calculated. Total ..	..	..	..	381.
Number uncertified, included in the above ..	..	..	..	None.

Sanitary Requirements of District, and Suggestions of Medical Officer of Health—

hat a local Medical Man be appointed as Inspector of Elementary Schools.

Establishment of a small dairy during the summer months for the supply of bottled milk to mothers.

TABLE B. 1904.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES & HOMEWORK.

1.—INSPECTION.

	Premises.				No of		No. of			No. of		
					Inspections.		Written Notices.			Prosecutions.		
Factories	...	...	...	...	...	39	...	...	1	...	...	0
Workshops	...	...	...	...	...	198	...	...	0	...	...	0
						<hr/>			<hr/>			<hr/>
	Total	...	...	...	...	237	...	...	1	...	...	0

2.—DEFECTS FUND.

Particulars.	Number of Defects.						Number of					
	Found.		Remedied.		Referred to		H M. Inspector.		Prosecutions		of	
Want of cleanliness	4	...	4	...	0	...	...	...	0
Insufficient sanitary accommodation...	1	...	1	...	0	...	...	...	0
Unsuitable or defective sanitary accomodation	3	...	3	...	1	...	...	...	0
Breach of special sanitary requirements for bakehouses (SS. 97 to 100).	1	...	1	...	0	...	...	...	0
				<hr/>		<hr/>		<hr/>				<hr/>
Total	9	...	9	...	1	...	...	...	0

3.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspectors of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	2
Action taken in matters referred by H M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)	
Notified by H.M. Inspector	1
Reports (of Action taken) sent to H.M. Inspectors...	1
Workshops on the Register (S. 131) at the end of 1904 :—	
Dressmakers, Plumbers, Bakehouses, Bootmakers, Tailors, Bookbinders and Printers	92

TO THE MEDICAL OFFICER OF HEALTH OF THE URBAN DISTRICT COUNCIL OF GOOLE.

SIR,

I have pleasure in presenting to you my Annual Report on Sanitary Improvements and Work carried out in my department during the year 1904.

Nuisances.

No. of Inspections made	...	...	...	...	2283
„ Written Notices served	...	...	...	...	192
„ Verbal Notices given	...	...	...	...	33
„ Statutory Notices issued by order of the Council	...	...	...	...	12
„ Nuisances abated	...	...	...	...	366
„ Nuisances not abated...	...	...	...	...	6
„ House Drains repaired and defects remedied	...	...	...	...	60
„ Yards re-paved or repaired	...	...	...	...	1
„ Removal of Fowls, Rabbits, etc.	...	...	...	...	7
„ Removal of Pigs	...	...	...	...	2
„ Dirty Houses cleansed, etc.	...	...	...	...	1
„ Defective and Choked W.C.'s...	...	...	...	...	5
„ Sinks and Cisterns disconnected from Drains	...	...	...	...	4
„ Trapped Gullies fixed in place of Cesspools...	...	...	...	...	4
„ Houses disinfected and cleansed after infection	...	...	...	...	110
„ Houses overcrowded	...	...	...	...	2
„ Miscellaneous Nuisances abated	...	...	...	...	62
„ Manure Heaps removed	...	...	...	...	26
„ Privy Middens converted into Box Closets...	...	...	...	...	24
„ Soil Boxes provided in place of Privy Middens	...	...	...	...	4
„ New Urinals erected on Private Property	...	...	...	...	1
„ Soil Boxes provided in place of Privy Middens	...	...	...	...	34
„ Defective and broken Soil Pipes	...	...	...	...	3
„ Repairs and alterations to Urinals, Private Property	...	...	...	...	1
„ Ashpits repaired	...	...	...	...	7
„ Closet Boxes repaired and new ones provided	...	...	...	...	181
„ Box Closets and Dry Ash Boxes emptied weekly	...	...	...	...	2988
„ Ashpits emptied once every month	...	...	...	...	749
„ Dry Ashpits emptied once every fortnight	...	...	...	...	...
„ Loads of Nightsoil removed	...	...	...	...	8616
„ Galvanised Iron Dust Bins provided in place of Ashpits	...	...	...	...	5
„ Galvanised Iron Soil Boxes provided in place of Wooden ones (Etd.)	...	...	...	...	300

It should be understood that several sanitary defects are included in one Notice of Nuisance. Hence the number of Nuisances abated above the number of notices.

Canal Boats Acts, 1877-84.

Boats inspected during the year	...	...	...	112
Additional Inspections are occasionally made to ascertain if defects, etc., have been remedied and notice fully complied with.				
No. of Boats complying with the Acts	...	...	...	85
No. of Boats contravening the Acts	...	...	...	27—112
No. of Boats on Goole Register	...	...	...	741
Highest No. on the Register	...	...	...	849
Boats registered during the year	...	...	...	9
No. of transfereneces of ownership	...	...	...	10
Duplicates Certificates issued	...	...	...	10
Neglect of Owners not properly Marking and				
Numbering	...	...	...	1
Overcrowding—Young Girls occupying Cabins	...	...	...	1
Dirty Cabins requiring more attention	...	...	...	—
Cabins requiring re-painting...	...	...	...	12
Notification of Infectious Disease	...	...	...	—
Boats requiring re-registration because of structural				
alteration to Cabins	...	...	...	—
Letters written during the year	...	...	...	75
Notices served...	...	...	...	14

During the year I have inspected 112 Canal Boats, several of the cabins of which required re-painting, and in one of which were two girls on board over the age of 12 years. Beyond a few minor contraventions of the Canal Boats Acts there was little to find fault with. The greater number of the cabins are exceedingly clean and tidy, and a credit to the boat people who reside on them.

The cabins of the 112 boats inspected were registered to accommodate as follows:—Aft cabins, 307 adults and 75 children; fore cabins, 205 adults and 24 children, whilst the actual number occupying were 168 men, 60 women and 75 children. The children occupying the cabins were from one to 10 years of age, so that a number of them would be of school age. In mentioning this fact to the parents, their excuse was “They will go to school when we arrive at Hull or our home.” The truth of such statements has to be taken for what it is worth. In several instances some of the elder children on board were only on what was called their summer holidays, and do not reside on board regularly.

In my experience as a Canal Boats Inspector I find a decided all-round improvement has been effected within the last few years.

Food and Drugs Act.

NEW MILK SAMPLES.

During the year I have purchased 17 Samples of New Milk from Cowkeepers and Purveyors of Milk, and have received the following report from the County Analyst: Seven samples were reported as genuine, and 10 samples of fair quality and in compliance with the requirements of the Board of Agriculture. Besides the samples taken by myself many have also been taken by the West Riding County Council's Inspectors.

Although throughout the country there are cases almost every day in the Courts as to the Adulteration of Milk, yet I must say—with credit to the purveyors of milk in Goole—that their dealings with milk to their customers must be honest, as I have never yet known a case of milk adulteration come before our Magistrates.

Dairies, Cowsheds and Milkshops.

No. of Persons on the Register	...	...	...	35
„ Cowkeepers and Purveyors of Milk...			10	
„ Town Purveyors of Milk	...	...	10	
„ Out-of-Town Purveyors	...	...	15—	35

There are now only 10 Registered Cowsheds in the town which are being used for cowkeeping. One cowshed has been pulled down, and three others are not now being used as cowsheds. The chief reason is because the people have given up cowkeeping, and now purchase their supplies from the country. There are seven brick cowsheds and three wooden ones in the Council's boundary which have been regularly inspected and kept in a fairly good condition.

Common Lodging Houses.

There are four Registered Lodging Houses in the Council's boundary, viz. :—One in the East Ward, two in the Central Ward, and one in the South Ward. These houses have been regularly inspected, and although they are not up-to-date lodging houses, they have been kept both clean and tidy. Considering the size of Goole, an up-to-date lodging house is greatly needed, and, in my opinion, it would be a good investment for a private individual, or company, to erect one. Your Council has power, under the Public Health Act, to erect municipal lodging houses.

Bakehouses

There are 11 Bakehouses on the Council's Register, eight of which are in daily use, excepting Sundays. Three are closed and at present not in use. There are no underground bakehouses in the town. The bakehouses are well inspected, and found to be kept clean and the Regulations complied with.

Public Slaughter House.

During the year the work of slaughtering has been carried out with great satisfaction and credit to the slaughtermen, who have endeavoured to cause as little pain as possible to the animals slaughtered. Your superintendent, Robert Williamson, has kept the slaughter house and premises exceedingly clean, and great care has been exercised in keeping the pining houses and their approaches clean and well bedded. The butchers and those in charge have, during the year, worked amicably together, and a good feeling exists and every satisfaction appears to have been given. I append a comparison table of beasts, sheep, pigs, etc., which have been slaughtered during the years 1903-4.

Public Mortuary.

During the year seven bodies have been conveyed to the Mortuary—six males and one female. Special attention has been given in keeping it clean and in order.

Seizures.

During the year I have had, in my inspections, to interfere with the diseased condition of several carcasses of animals slaughtered and in preparation for human food. Two carcasses were seized and, along with the entrails, destroyed.

Two carcasses were found to be slightly affected, and in their first stage of Tuberculosis. After a thorough examination the carcasses were allowed to pass, but in both cases the whole of the entrails and portions of the carcasses were destroyed.

In all seizures of Food Stuffs an opinion is formed as to whether the business is honest and in good faith. If so, the owner's permission is sought as to destroying; if he decides in destroying he must then sign a document which prevents any argument after such food stuffs have been destroyed.

Town and Market Seizures.

Seized and Destroyed,	1½	stone	Plaice.
„	„	1	„ Cod-fish.
„	„	2½	„ Whiting.
„	„	several	stones of decayed
			Vegetables.

A sharp lookout is always kept on all matters of Food Stuffs which are appertaining to the food of man, under the Public Health Acts.

Night Scavenging.

During the year the Night Scavenging of the town has been carried out by the three contractors satisfactorily. On the whole their work has been carried out with expedition and kept up-to-date, and in such a manner that there has been very little reason to find any fault with their work. In fact, I have not received a half-dozen complaints of neglect on their part during the year. Since my last Annual Report to you I am more than pleased to say that my Council have purchased seven new soil carts of an improved pattern, built of wood, and have only just issued a repeated order for five more such carts, making in all 12. It is an acknowledged fact that these carts are in every respect a great improvement on the old-fashioned tumbler carts—(1) lighter and easier for the horses; (2) make less noise when working; and (3) more easy and comfortable for the men in carrying out their work, which is done much cleaner.

In my report for 1902 I mention the fact of galvanised iron soil boxes in preference to wooden ones, they being more sanitary, and have many other advantages which I claim for them both for the interest of owners and tenants alike. In January, 1903, I approached

the local ironmongers with a view to them ordering one for a sample box; this they did, and soon began to receive orders for ones, twos and threes. They had not been introduced in the town many months when they received orders for dozens, and to-day I estimate the number to be not less than 300, which have been provided for closets in the Council's boundary. Now, as old wooden soil boxes wear out or give way, a great many owners and agents of property are having galvanised iron boxes substituted in place of the wooden ones. I can safely say that fully 90 per cent. of galvanised soil boxes are now being provided against wooden ones in Goole. Considering the first year of their introduction into the town, I am exceedingly pleased with the large number which have been used and the satisfaction they have given to those who have purchased them. For our first year I think we have made rapid strides with this new class of soil box, and to continue at the same rate I am of the opinion that the old wooden soil box in Goole will soon be a thing of the past.

Disinfection Station.

During the year the undermentioned wearing apparel, etc., have been disinfected under steam at the Sanatorium:—

Blankets	...	...	...	...	...	...	152
Sheets	...	...	...	...	...	...	51
Counterpanes	...	...	...	...	...	...	63
Pillows	...	...	...	...	...	...	47
Pillow-slips	...	...	...	...	...	...	59
Beds	...	...	...	...	...	...	13
Dresses	...	...	...	...	...	...	39
Petticoats	...	...	...	...	...	...	57
Underclothing	...	...	...	...	...	...	180
Boots	...	...	...	...	...	...	67
Hats	...	...	...	...	...	...	50
Stockings	...	...	...	...	...	...	81
Coats	...	...	...	...	...	...	72
Waistcoats	...	...	...	...	...	...	36
Trousers	...	...	...	...	...	...	43
Shawls	...	...	...	...	...	...	35
Dressing Gowns	...	...	...	...	...	...	2
Sundries	...	...	...	...	...	...	182
							1229

Small Pox Epidemic.

During the invasion of Small-pox great care was exercised in thoroughly disinfecting, under steam, over 800 articles of wearing apparel, including beds and bedding, which were disinfected by myself 800

Total 2029

Considering the large number of articles, and the hurry and worry that is caused on such occasions, it is a significant fact that only one blanket was missing. This was made good. Every house from whence a Small-pox patient was removed, the rooms were at once thoroughly fumigated with formalin and sulphur, the bedding, etc., being removed for disinfection, when the walls and ceilings of the patients' rooms were stripped of all wall papers and thoroughly washed down with a strong solution of disinfectants. Every possible precaution was taken against the disease spreading.

Pig Keeping.

During the latter part of the year I reported to your Council in detail as to pigs being kept on premises within 30 feet from dwelling houses, when they decided it was most important for the well-being and the town's progress that their Bye-Laws should be respected and complied with. They therefore directed that notice bills should be posted in the localities in which pigs were being kept, giving notice that after the expiration of four months from the 7th January, 1905, any person keeping pigs within the prescribed distance of the Council's Bye-Laws would at once be reported with a view to proceedings being taken to enforce compliance therewith. This decision of the Council is greatly appreciated in my department, as it will be the means of preventing many nuisances which have arisen through keeping pigs in unsuitable localities.

I am, Sir, yours faithfully,

W. H. ELLIS,

Sanitary Inspector.

BEASTS, SHEEP, PIGS AND CALVES SLAUGHTERED AT THE
COUNCIL'S SLAUGHTER-HOUSE.

1903.

	Beasts. 1s. 6d.	Sheep. 3d.	Pigs. 6d.	Calves 9d.	Rent. s. d.	No. of pigs at 6d extra ov'rw't	Amount. s. d.	Total. £ s. d.
January ...	97	94	186	—	—	33	16 6	14 2 6
February...	85	95	155	—	—	26	13 0	12 1 9
March	83	93	146	—	—	26	13 0	11 13 9
April	82	102	118	22	—	23	11 6	11 15 6
May	109	194	127	5	—	21	10 6	14 9 9
June	82	177	82	1	—	15	7 6	10 16 6
July	79	191	63	—	—	12	6 0	10 3 9
August	107	247	73	2	—	18	9 0	13 9 3
September.	87	158	90	—	—	18	9 0	11 4 0
October	113	148	121	—	—	26	13 0	14 0 0
November.	91	100	101	—	—	32	16 0	11 8 0
December.	85	103	149	—	—	33	16 6	12 4 3
	1100	1702	1411	30	—	283	£7 1 6	£147 9 0

4526

1904.

January ...	94	94	166	—	—	35	17 6	13 5 0
February ...	82	98	170	—	—	33	16 6	12 9 0
March	82	104	152	1	1/-	31	15 6	12 2 3
April.....	112	146	128	25	1/-	17	8 6	14 19 3
May	82	171	96	3	—	20	10 0	11 6 0
June	87	188	80	2	—	16	8 0	11 7 0
July	116	282	97	—	—	9	4 6	14 17 6
August	86	208	74	1	—	9	4 6	11 3 3
September	86	169	114	—	—	24	12 0	12 0 3
October ...	110	176	191	1	—	46	1 3 0	16 8 3
November	87	119	181	1	—	35	17 6	13 9 0
December	98	121	226	1	—	53	1 6 6	15 17 6
	1122	1876	1675	35	2/-	328	£8 4 0	£159 4 3

5036

W. H. ELLIS, SANITARY INSPECTOR.

